

ABSTRACTDRIVE MECHANISMS FOR VALVE ACTUATORS

The present invention provides a motorized valve actuator wherein the drive

5 from the motor to the output shaft of the actuator is via a worm and worm wheel or other gear mesh which is incapable of being back driven, the actuator having an alternative manual drive, the manual drive comprising a hand wheel and a clutch and lever to change from motor power drive to hand drive mode, the actuator further having an intermediate shaft between the motor and output shaft, the hand wheel being carried

10 by or at least operatively linked to the intermediate shaft to drive the intermediate shaft, the clutch mechanism being associated with/ mounted on the intermediate shaft, the intermediate shaft being positioned between the motor and the worm/ worm wheel drive whereby the clutch mechanism associated with/ mounted on the intermediate shaft operates substantially freely when the lever is operated to bring the actuator into hand

15 drive mode, the output shaft torque generated by the previous motor powered run and locked into the output shaft by the non-back driving worm/worm wheel mesh not being locked into the clutch mechanism.